

**REMARKS**

The Final Office Action mailed March 21, 2005, has been received and reviewed. Claims 19, 21 through 23, and 25 through 34 are currently pending in the application. Claims 19, 21 through 23, 25, 27, and 29 through 34 stand rejected. Claims 26 and 28 have been objected to as being dependent upon rejected base claims, but the indication of allowable subject matter in such claims is noted with appreciation. Applicant respectfully requests reconsideration of the application as proposed to be amended herein.

**35 U.S.C. § 103(a) Obviousness Rejections**

Obviousness Rejection Based on U.S. Patent No. 5,851,845 to Wood et al. in View of U.S. Patent No. 5,281,846 to Kaiser

Claim 19 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Wood et al. (U.S. Patent No. 5,851,845) in view of Kaiser (U.S. Patent No. 5,281,846). Applicant respectfully traverses this rejection, as hereinafter set forth.

M.P.E.P. 706.02(j) sets forth the standard for a Section 103(a) rejection:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine reference teachings. Second, there must be a reasonable expectation of success. Finally, **the prior art reference (or references when combined) must teach or suggest all the claim limitations.** The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). (Emphasis added).

Applicant submits that the obviousness rejection of the presently claimed invention is improper as set forth hereinbelow.

The Examiner relies Wood as teaching or suggesting a substantial number of the acts recited by claim 19 of the presently claimed invention. Specifically, the Examiner cites Wood as follows:

Wood et al. disclose a method of fabrication a multi-die assembly, comprising:  
providing a substrate 26 including a plurality of conductors 28 (fig. 5);  
attaching at least one active face down base die 12B to the substrate in electrical communication with at least some of the plurality of conductors (fig. 5);  
providing a layer of adhesive 22 to a back side of the at least one base die;  
placing a back side of at least one active face up stack die 12t on the layer of adhesive 22 (fig. 4) [fig. 5 is constructed substantially as fig. 4, but includes a die 12b);  
curing the layer of adhesive (column 4, lines 13-19) and securing the back side of at least one stack die to the at least one base die (figs. 405, column 4, line 57-64);  
providing a direct electrical path between the at least one stack die 12t and at least one of the plurality of conductors 28 (fig. 4). (Office Action, page 2).

The Examiner further states that Wood fails to “disclose the adhesive layer is an electrically conductive epoxy and providing a direct electrical path between the dice.” (*Id.*) The Examiner then cites Kaiser as teaching an electrically conductive epoxy adhesive (20) and states that it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the process of Wood by forming the layer of adhesive with an electrically conductive adhesive, as taught by Kaiser, in order to provide an electrical connection between the chips. While Applicant disagrees with the rejection based on the proposed combination of Wood and Kaiser, Applicant notes that Wood is unavailable as a prior art reference for the presently claimed invention and, therefore, that the rejection of claim 19 is improper.

Applicant submits that Wood qualifies as a prior art reference only under 35 U.S.C. § 102(e), Wood having been filed prior to the filing date of the present application, but issuing (and being published) after the filing date of the present application.

35 U.S.C. § 103(c) states that “[s]ubject matter developed by another person, which qualifies as prior art only under one or more of subsections (e), (f), and (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.”

Applicant notes that the subject matter of the claimed invention and the subject matter of the Wood patent were owned by the same person or subject to an obligation of assignment to the same person at the time the present invention was made. Enclosed herewith is assignment data from the USPTO's website showing assignment of the both the Wood patent and the present application to Micron Technology, Inc.

Without the description of Wood, Applicant submits that the obviousness rejection of claim 19 is improper since Kaiser fails to teach or suggest all of the limitations of claim 19 as is at least implicit in the Examiner's proposed combination of the two references.

Applicant, therefore, respectfully requests reconsideration and allowance of claim 19.

Obviousness Rejection Based on U.S. Patent No. 5,851,845 to Wood et al. in View of U.S. Patent No. 5,281,846 to Kaiser and Further in View of U.S. Patent No. 5,323,060 to Fogal et al.

Claims 21 through 23, 25, 27, 29, 33, and 34 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Wood et al. (U.S. Patent No. 5,851,845) in view of Kaiser (U.S. Patent No. 5,281,846), and further in view of Fogal et al. (U.S. Patent No. 5,323,060). Applicant respectfully traverses this rejection, as hereinafter set forth.

As set forth hereinabove, use of Wood as a prior art reference in the present rejection is improper since Wood is considered as qualifying as a prior art reference only under 35 U.S.C. § 102(e) and since the subject matter of Wood and the subject matter of the presently claimed invention were owned by the same person or subject to an obligation of assignment to the same person at the time the invention was made.

Without the description of Wood, Applicant submits that the obviousness rejections of claims 21 through 23, 25, 27, 29, 33, and 34 are improper since the combination of Kaiser and Fogal fails to teach or suggest all of the limitations of claim 21 through 23, 25, 27, 29, 33, and 34 as is at least implicit in the Examiner's proposed combination of the three references.

Applicant, therefore, respectfully requests reconsideration and allowance of claim 21 through 23, 25, 27, 29, 33, and 34.

Obviousness Rejection Based on U.S. Patent No. 5,851,845 to Wood et al. in View of U.S. Patent No. 5,281,846 to Kaiser and Further in View of U.S. Patent No. 5,399,898 to Rostoker

Claims 30 through 32 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Wood et al. (U.S. Patent No. 5,851,845) in view of Kaiser (U.S. Patent No. 5,281,846), and further in view of Rostoker (U.S. Patent No. 5,399,898). Applicant respectfully traverses this rejection, as hereinafter set forth.

As set forth hereinabove, use of Wood as a prior art reference in the present rejection is improper since Wood is considered as qualifying as a prior art reference only under 35 U.S.C. § 102(e) and since the subject matter of Wood and the subject matter of the presently claimed invention were owned by the same person or subject to an obligation of assignment to the same person at the time the invention was made.

Without the description of Wood, Applicant submits that the obviousness rejections of claims 30 and 32 are improper since the combination Kaiser and Rostoker fails to teach or suggest all of the limitations of claim 30 and 32 as is at least implicit in the Examiner's proposed combination of the three references.

Applicant, therefore, respectfully requests reconsideration and allowance of claim 30 and 32.

**Objections to Claims 26 and 28/Allowable Subject Matter**

Claims 26 and 28 stand objected to as being dependent upon rejected base claims, but are indicated to contain allowable subject matter and would be allowable if placed in appropriate independent form. As set forth hereinabove, Applicant submits that claim 19, from which each of claims 26 and 28 ultimately depend, are in condition for allowance. Applicant, therefore, submits that claims 26 and 28 are in condition for allowance and respectfully requests the same.

**CONCLUSION**

Claims 19, 21 through 23, and 25 through 34 are believed to be in condition for allowance, and an early notice thereof is respectfully solicited. Should the Examiner determine that additional issues remain which might be resolved by a telephone conference, he is respectfully invited to contact Applicant's undersigned attorney.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Bradley B. Jensen', with a long horizontal line extending to the right.

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Date: May 23, 2005

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